
Committee for Energy Efficiency and Sustainability (CEES)

Committee Meeting Agenda

Wednesday, May 12, 2021

7:00pm to 8:30pm

GoToMeeting Video Stream

Agenda

Item	Agenda	Start Time
1	Call to Order:	7:00 pm
2	Approval of April 14, 2021 Minutes	7:05 pm
3	Consumer Owned Utility Presentation	7:05 pm
4	Ongoing Project/Policy Update(s): Community Solar, EV, etc.	8:00 pm
5	Adjourn	8:30 pm

Materials

4.14.21 Meeting Minutes
COU Presentation Material

Board Members

Toby Ahrens, Chair
David Ertz
Kurt Adams
David Craig
Mike Sears
Chuck Parker
Scott Sherriff
Peter Fromuth
Bill Dunn
Anna Siegel, Student Liaison
April Humphrey, Town Council

Staff

Scott LaFlamme,
Economic Development Director

Nat Tupper,
Town Manager



Committee for Energy Efficiency and Sustainability (CEES)

Committee Meeting Minutes

Wednesday, April 14, 2021

7:00pm to 8:30pm

GoToMeeting Video Stream

Approval of March 10, 2021 Meeting Minutes

Chair, Toby Ahrens, brought the April 14, 2021 CEES meeting to order at 7:00pm. David Craig moved to amend the March 10, 2021 meeting minutes to include a corrected meeting date. Chuck Parker seconded the motion. The motion carried unanimously.

Renewable Natural Gas Presentation: Kurt

Committee member and President of Summit Natural Gas, Kurt Adams provided the group with a very detailed presentation on technological advancements to green natural gas production. Based on the unsustainable growth of carbon emissions and urgent need to reduce them K. Adams outlined the need for innovative new renewables and continued support for research and development.

Renewable natural gas, either through methane collection and digestion or other variations, ultimately work toward greening the carbon molecule. After his presentation, K. Adam answered a number of questions from the committee. The entire presentation is attached.

Policy Resolution Recommendations

T. Ahrens provided the committee with an overview of the policy initiatives that CEES has been presented with during the February and March meetings. S. LaFlamme reported that the Green Voices Society (GVS) has connected with the Town Council and is preparing for a presentation regarding a local Climate Emergency Declaration.

Regarding the Carbon Fee and Dividend legislative efforts, the committee reviewed the materials shared by Marcia Harrington and the Citizen's Climate Lobby. Based on that information and the March discussion, the majority of committee members shared their support for the resolution. Many were hopeful that a local endorsement would help to influence Yarmouth's legislative delegation to pursue such a policy.

T. Ahrens moved to recommend to the Town Council to support the enactment of a National Revenue Neutral Carbon Fee and Dividend System that includes a steadily rising pollution fee levied as far upstream in the economy as possible, that starts low and increases steadily and predictably to achieve the goal of reducing carbon dioxide emissions in the US by 90% levels by 2050. C. Parker seconded the motion and the majority of members voted in favor. K. Adams abstained from the vote.

Board Members Present

Toby Ahrens
Chuck Parker
Scott Sherriff
David Ertz
David Craig
Mike Sears
Kurt Adams
Bill Dunn
April Humphrey, Town Council
Anna Siegel, Student Liaison

Staff

Scott LaFlamme,

Members of the Public

Marcia Harrington
Chace Jackson



Project Update

- S. LaFlamme provided the committee with an update on the installation of EV charging stations. Based on the recent acquisition of three electric vehicles for Town use, staff has designed a charging location at the rear of Town Hall. The three spaces will be available and free to the public. The location will be shared on plug-share apps. Staff looked at several locations, but Town hall was the most obvious and least expensive at \$3,100. The committee mutually agreed to pursue the plan as recommended.
- T. Ahrens reported his conversation with the School District on the possibility of replacing old school buses with electric alternatives. The school has looked into the bus alternatives, but they are still prohibitively expensive. Members of the committee volunteered to reach out to other districts and organizations that are exploring EV bus alternatives to get more information.
- D. Ertz provided an update on the community solar project. Flycatcher LLC, the wetland delineation firm that the Town contracted for site work on Sligo Road, were making good progress. Shape files with their preliminary assessment are going to be available by May 7th. RFP materials are being reviewed by staff and members of the committee.
- A. Siegel suggested that the committee look for ways to influence upcoming legislation on municipal climate action planning. A. Siegel has connected her legislative contact with S. LaFlamme.
- M. Sears reported on his assessment of the Bridge Street fish passage. He suggested having the Town clear the existing debris as a temporary measure. M. Sears will reach out to Nat Tupper to explore next steps.
- B. Dunn volunteered to provide the committee with a presentation on Consumer Owned Utility at the May meeting.

T. Ahrens adjourned at 9:00pm upon mutual consent.



OUR POWER

LOWER COST • LOCAL • RELIABLE

Controlling Our Energy Future

Maine now has an exciting solution to our energy problems: Creating a nonprofit, consumer-owned utility, the **Pine Tree Power Company**. Nationwide consumer-owned utilities (COUs) now serve one in three U.S. households. On average, COUs like the proposed Pine Tree Power charge customers 13 percent less than investor-owned utilities (IOUs) like CMP and Versant. These COUs are also twice as reliable, with fewer and shorter outages.

Maine's existing COUs serve 97 towns, from Calais to Kennebunk. Maine's for-profit, investor-owned utilities like CMP and Versant charge residential customers 58% more than consumer-owned utilities do. **In fact, if CMP and Versant charged the same rates as Maine COUs customers would save \$155 million/year** (as of 1/1/2021). These funds could be used to improve our power delivery system and make energy more affordable.

What is Our Power?

Our Power is a growing coalition of everyday Mainers, conservationists, energy experts, business, faith, and elected leaders who are committed to creating a consumer-owned utility that meets Maine's needs.

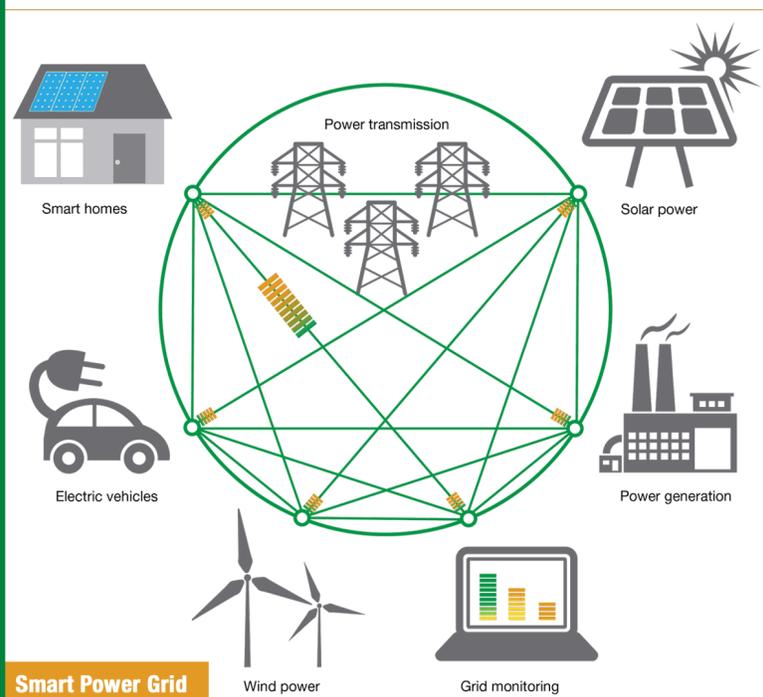
This system, known as the grid, or our poles and wires, is key to Maine's energy future. To do our part to address climate change and reach a zero-carbon economy by 2045, **we must substitute renewable electricity** for heating oil, gasoline, and other fossil fuels. Converting much of our heating and transportation to electricity will at least triple our need for power from the grid.

To carry that load, our grid will need investments of \$10 to \$15 billion, according to Maine energy economist Dr. Richard Silkman. CMP and Versant would finance these upgrades very expensively, adding their profits and even their corporate taxes to our ballooning monthly bills. As a COU, Pine Tree Power will borrow at 3 percent or less. That lower rate reduces our cost by at least \$9 billion over 30 years, according to Silkman. The choice is ours: we can be captive customers of CMP and Versant, or save money while investing in better service, fewer outages, and a more rapid, equitable shift to clean energy.

A Maine Utility Owned by Mainers

Here's the deal: As a CMP or Versant customer, you essentially rent the grid by paying your bill. Under U.S. laws, you pay not only for your distant landlord's costs, but also for their taxes, high interest rates, and guaranteed double-digit profits! **By buying the grid, we turn our monthly bill from a high rent to a lower mortgage payment.** We save money, and build up equity of our own.

The Pine Tree Power Company will pay CMP and Versant a fair price, with no tax money or state bonds. Rather, Pine Tree Power will issue its own bonds, borrowing at low rates against the bills we all pay.



OurPowerMaine.org

Paid for and Authorized by Our Power • 7 Pine Street • Bar Harbor Maine 04609

Pine Tree Power will be a Maine utility owned by Mainers that reinvests in Maine. It will be transparent and responsive to us, not to investment managers sitting in a distant corporate boardroom. Like all COUs, **it will be independent—not state run!**

As a COU, Pine Tree Power will receive federal help after big storms. In contrast, CMP and Versant charge customers to repair the damage.

Putting Mainers in the Driver’s Seat

Pine Tree Power will be run by an independent, not-for-profit board, with **7 elected and voting members** and 6 expert advisory members. They will answer to us, their Maine customers—not to distant investors who can’t find Maine on a map.

Qualified, **private-sector** professionals will operate the Pine Tree Power Company. The board will select operations teams by competitive bid to do what counts: keep our bills low and our lights on.

Everyone can have a voice in Pine Tree Power decisions. We will elect the board and be able to attend its meetings.

Board communications will be available under Maine’s Freedom of Access laws.

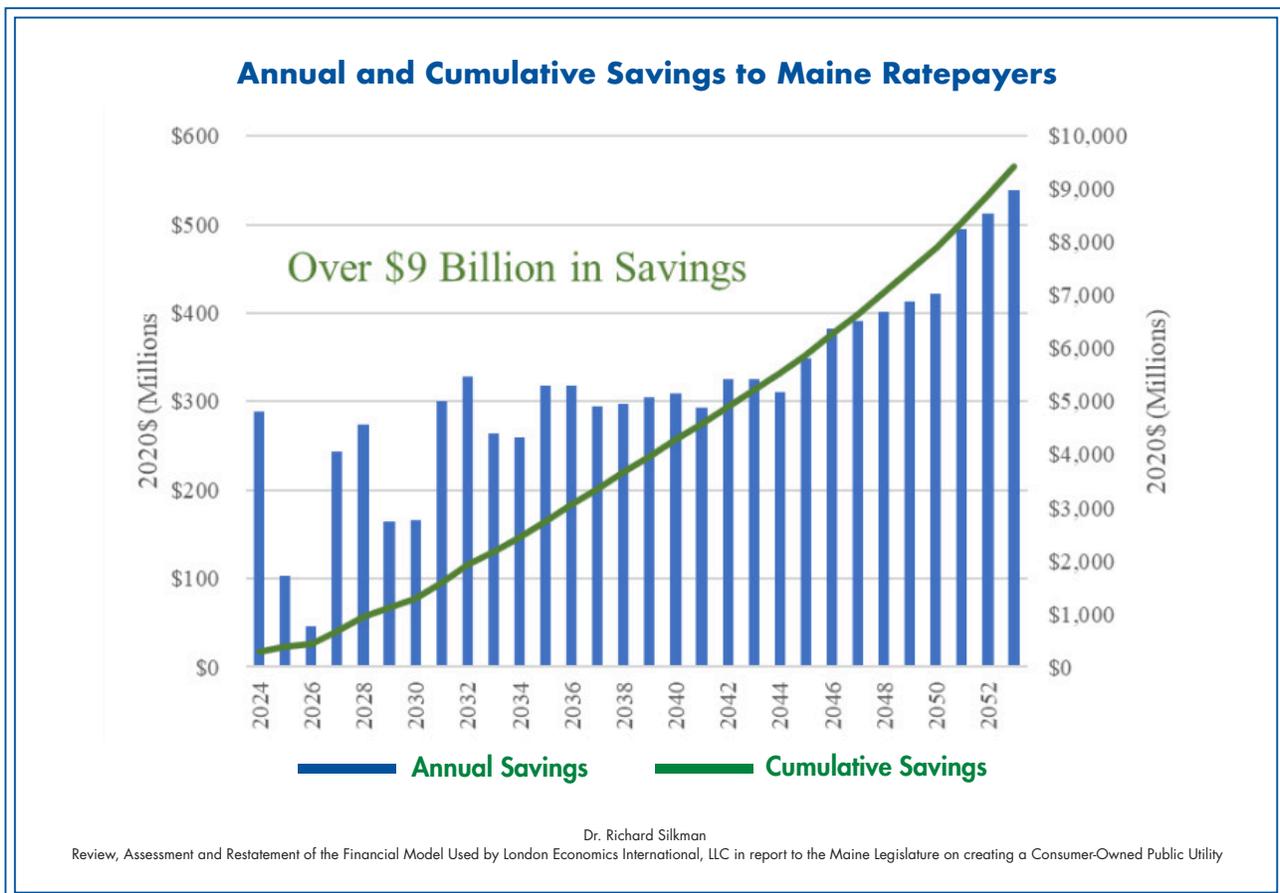
Pine Tree Power is a Win-Win

Municipalities will win. Pine Tree Power will match what CMP or Versant pays your town. Maine’s existing COUs can choose to join, or not.

Workers will win. They will keep their jobs, contracts, seniority, and pensions. New jobs will be added to improve service, reliability and emergency response.

Rural broadband will win. Pine Tree Power will cut pole access costs and delays for Internet providers.

Our environment will win. The first six places in the US to reach 100% renewable electricity are all served by COUs. Another COU, with 1.5 million customers, is 20 years ahead of Maine’s renewable goals. By reducing outages and costs, a COU focused on our clean energy independence will help Mainers switch to electricity for heat, vehicles, and more. A nonprofit power delivery utility that restores our power is a win-win for Maine and a clean-energy future.



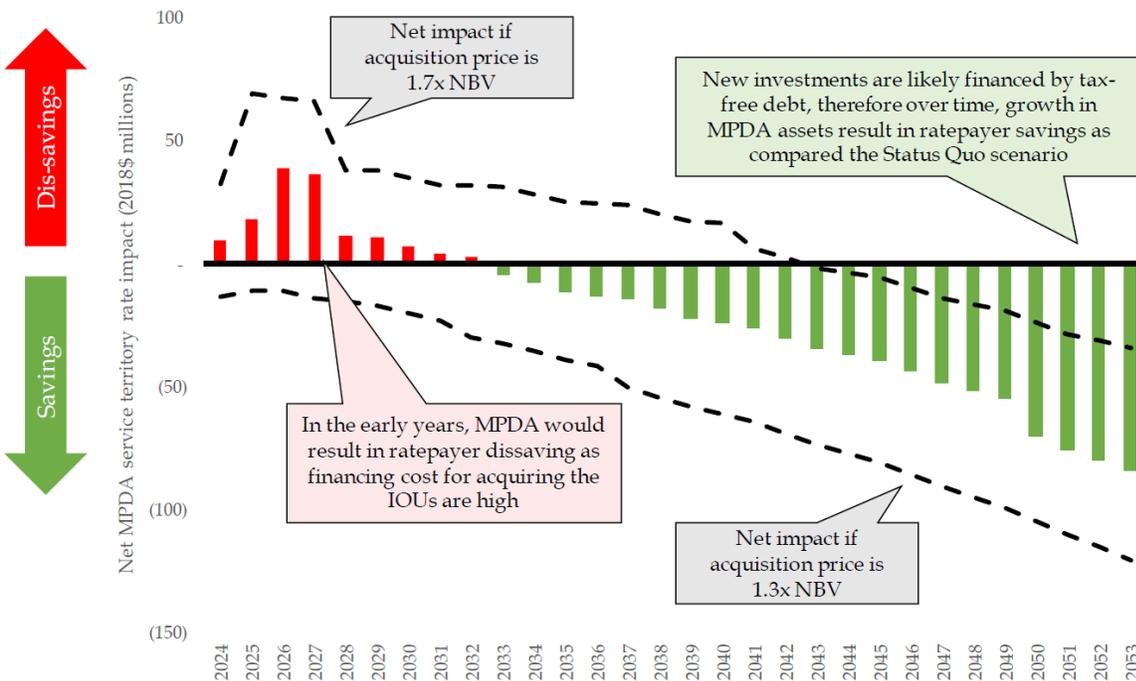
ECONOMIC SYNOPSIS
PINE TREE POWER COMPANY

Bill Dunn, Yarmouth
 April 2, 2021

On February 15, 2020 London Economics International LLC (“LEI”), in collaboration with Peter Brown, Esq., issued a report titled “Evaluation of the Ownership of Maine’s Power Delivery System” (the “LEI Report”)¹. This 100 page report, commissioned by the Maine Public Utilities Commission (“MPUC”), covered many details associated with the creation of the Maine Power Delivery Authority (“MPDA”). While the LEI Report and the Silkman analysis (referenced later) refer to MPDA, I’ll simply refer to Pine Tree Power Company (“Pine Tree Power”), which is the current name of the utility that would be created. Some recommendations of the LEI Report have been incorporated by the proponents of Pine Tree Power into their newer proposal.

While the LEI Report found Pine Tree Power to be economic in the long run, and positive on a present worth basis, their report contained several significant errors which understated the positive economics of Pine Tree Power. Below is Figure 1 from the LEI Report:

Figure 1. Forecast of annual MPDA electric rate impacts (Reference Case), 2018 \$ millions



Source: LEI analysis

The base case in this figure shows the economics if Pine Tree Power purchases the assets of the Investor-Owned Utilities (“IOUs”)² at 1.5 times the Net Book Value (“NBV”) of those assets (the Reference Case). It indicates that retail rates would be higher under Pine Tree Power for the

¹ [“Evaluation of the Ownership of Maine’s Power Delivery System.” London Economics International, LLC; February 15, 2020](#)

² Central Maine Power Company (“CMP”) and Versant (until 2020 known as Emera and before that as Bangor-Hydro).

first 9 years and then lower forever after that. The sensitivity analyses show that Pine Tree Power is less expensive immediately for a purchase price of 1.3 NBV and is more expensive for the first 19 years for a purchase price of 1.7 NBV. In all cases Pine Tree Power is less expensive (lower electric rates) in the long run (30 years).

On a present worth basis, the LEI Report looked at the cumulative benefits over both 10 years and 30 years at discount rates of 3.5% and 5.5%. The results for the Reference Case (purchase price of 1.5 NBV) were shown in Figure 3 of the LEI Report:

Figure 3. Cumulative ratepayer savings/dis-savings under Reference Case assumptions based on NPV analysis over the short term and long term

\$million in 2018\$ (negative is savings)		Real discount rate	
		3.5%	5.5%
Time horizon	Short term (10 years)	\$118	\$110
	Long term (30 years)	(\$236)	(\$119)

As can be seen, there are hundreds of millions of dollars of long-term savings from Pine Tree Power under both discount rates. In this regard, the LEI Report supports the creation of Pine Tree Power simply based on its long-term economic benefits. Once the errors in the LEI Report are corrected, the economic case for Pine Tree Power creation is even stronger.

Dr. Richard Silkman analyzed the LEI Report and its underlying economic Model and published his analysis on May 15, 2020.³ The first correction relates to LEI’s treatment of cash. The LEI Model looks at revenues (income) and expenses in determining the economic impact of Pine Tree Power creation. In effect, they determine the Income Statement (or Profit and Loss Statement) for Pine Tree Power over time. However, once Dr. Silkman examined the underlying Model, he found that besides paying expenses and scheduled debt service with the revenues received from customers, the Model was also accumulating cash. This cash was not shown on the Income Statement but on the Balance Sheet as an asset, and no credit was given to the benefits of Pine Tree Power for that cash asset and no interest was earned on that asset.

Correcting to recognize the cash and interest earned on the cash, after 30 years Pine Tree Power has \$1.2 billion less debt and has \$5.2 billion in cash, so Maine ratepayers (the owners of Pine Tree Power) are \$6.4 billion better off, with a net present worth value of about \$2.7 billion. This value is about 12 times the \$236 million⁴ present worth value shown in the LEI Report and equal to about \$2,000 for each resident of Maine in 2024. This accumulation of cash occurs because

³ [“Review, Assessment and Restatement of the Financial Model Used by LEI in its Report to the Maine Legislature on the Creation of a Consumer-Owned Public Utility.” Dr. Richard Silkman, May 15, 2020](#)

⁴ In his analysis, Dr. Silkman refers to the LEI calculated long-term present worth savings at a 3.5% discount rate as \$232 million, not \$236 million. The \$232 million figure is the figure for that present worth in the LEI Model spreadsheet that they provided Dr. Silkman (Model cell D189). Similarly, the spreadsheet shows the present worth of the long-term savings at a 5.5% discount rate as \$118 million, not the \$119 million shown in LEI Figure 2. The reason for these slight discrepancies is not known, but they do not impact the final analysis.

the LEI Model limits the amount of cash that can be used to pay down debt or fund capital expenditures and the cash doesn't earn any interest.

That is not the only issue Dr. Silkman had with the LEI analysis. LEI ties operating expenses ("OpEx") to capital expenses ("CapEx"), even though many of the capital expenditures are simply to replace old, worn out and fully depreciated equipment. In other words, excluding system expansion, the value of the rate base goes up, because newer equipment costs more, but the amount of equipment remains essentially the same. Dr. Silkman, instead, ties OpEx to the portion of the rate base that is incremental to the maintenance rate base as it exists today. This lowers the increase in OpEx expenses over the next 30 years from an ~500% increase to an ~300% increase.

With respect to management expenses, Dr. Silkman re-creates the CMP (and Versant) management structures as they existed before their acquisition by other foreign utilities and their need to pay management fees to those companies. This lowers the starting cost of management from ~\$82 million in the LEI Model to ~\$15.3 million (~\$11 million for CMP and then scaled up to include Versant). The difference in this management fee over 30 years is roughly \$4.75 billion. To put the management fee structure LEI has built into its Model in perspective, the average annual management fee over the 30-year period is about \$10 million **more** than the total amount CMP spent on wages and salaries for its direct employees (employees on the CMP payroll and not employees of Avangrid and/or Iberdrola) plus 100% of the total affiliate charges to CMP by Avangrid in 2018 under its shared services agreement.

Another significant issue in the LEI study was their use of Weighted Average Cost of Capital ("WACC"). The way transmission is priced in New England is that all customers share in the cost of the high voltage Regional Network Service ("RNS") transmission system. In effect, Maine customers pay a small (approximately 9%) portion of the cost of all RNS transmission elsewhere in New England, and the rest of the customers in New England pay a large (approximately 91%) portion of the cost of the RNS transmission in Maine. So, the higher the WACC that Pine Tree Power charges for use of its transmission as part of the RNS rate, the higher the contribution to this cost paid by customers elsewhere in New England. Therefore, if Pine Tree Power uses a WACC similar to the WACCs used by the other transmission companies in New England, say 10%, rather than the 8% used in the LEI study, the economics of Pine Tree Power improve. Such adjustment improves Pine Tree Power finances by ~\$4 billion over 30 years.

Finally, there are also differences in the timing of CapEx over the 30 years between Dr. Silkman and the LEI Model, but these do not total to a significant difference and so only represent a very small percent of the total differences between the studies.

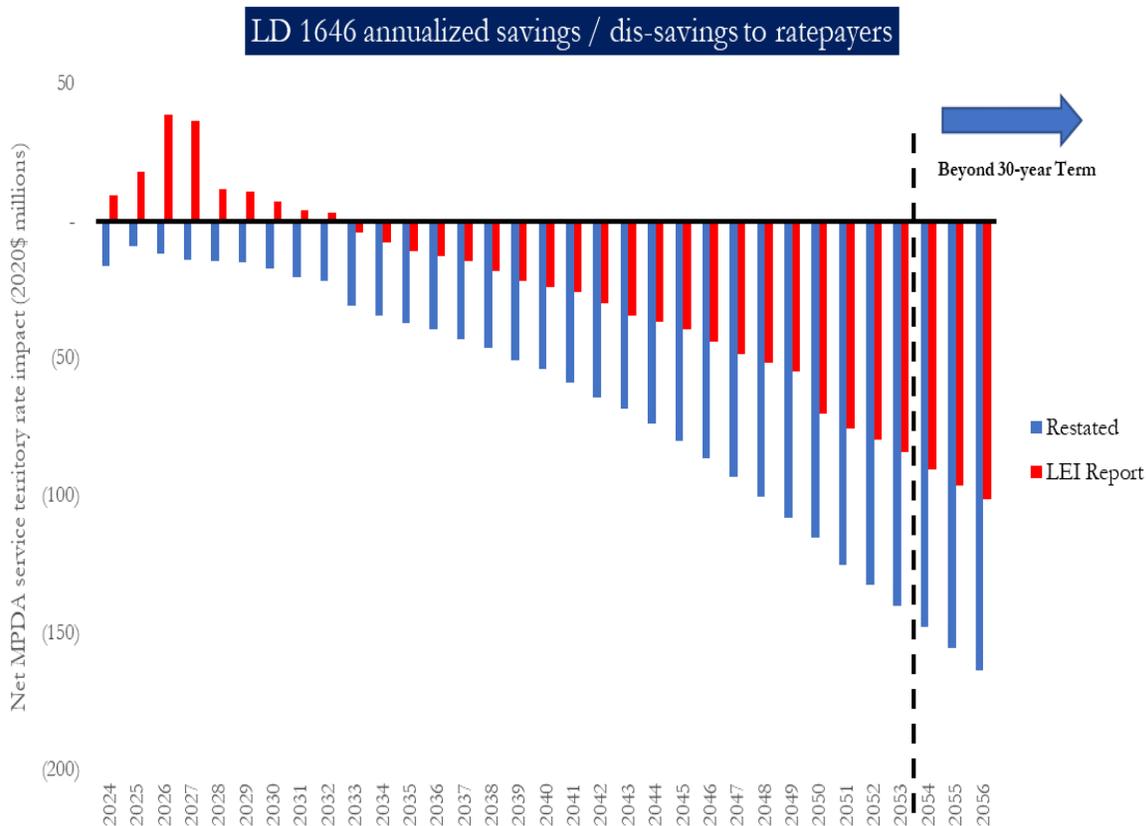
Of course LEI commented on Dr. Silkman's analysis,⁵ but their comments do not change his conclusions:

- With respect to recognizing the excess cash, LEI says that such cash cannot be liquidated without impacting future financing costs. This ignores the simple fact that the cash is an asset that would be part of the value of Pine Tree Power should it be sold, and would earn interest while accruing.

⁵ [LEI Letter to EUT Committee in Response to Silkman Restatement, July 29 2020](#)

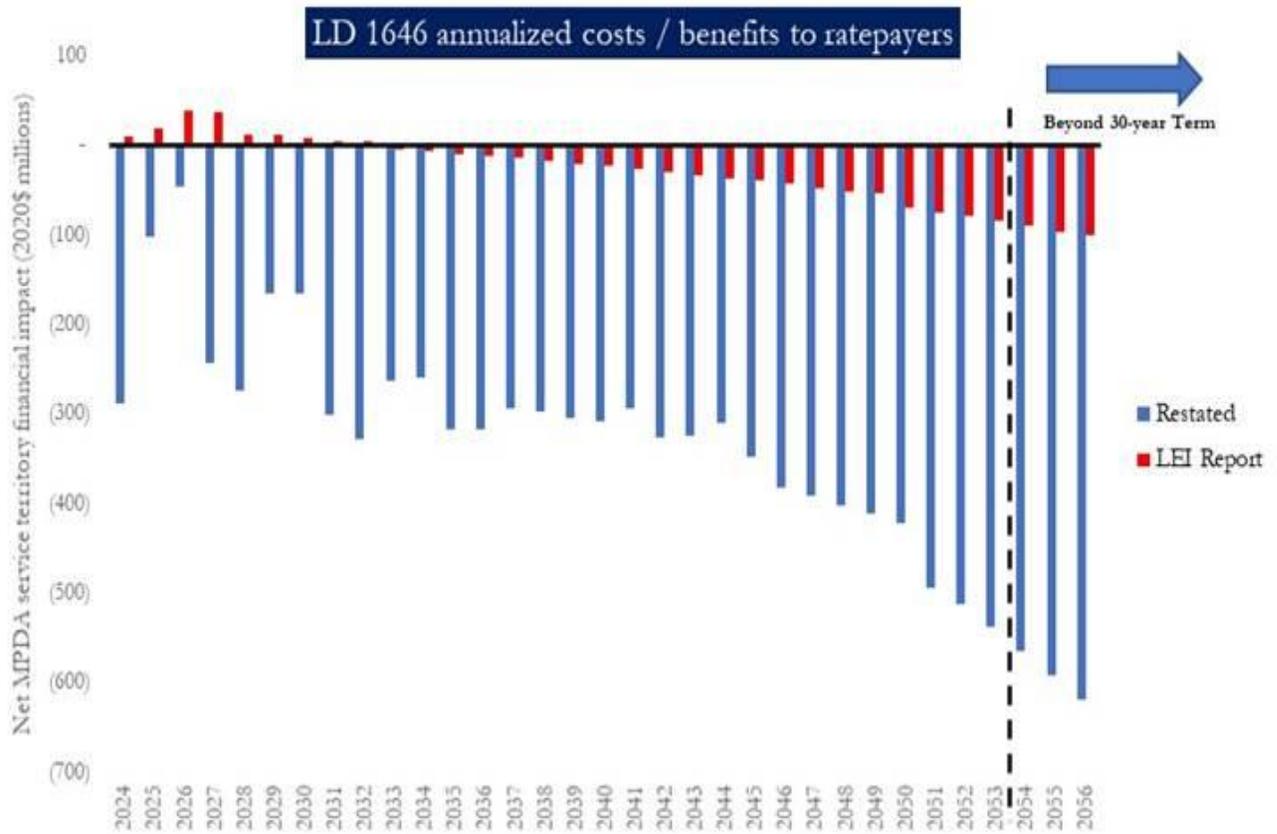
- With respect to adjusting the OpEx expenses, LEI suggests it is premature to forecast that future OpEx would be less, but does not respond to the specifics of Dr. Silkman’s analysis. They suggest that his assumptions could be used with the rest of their assumptions, without acknowledging that doing so would improve the economics of Pine Tree Power in their Model even more.
- With respect to management expenses, LEI offers no response.
- With respect to WACC, LEI says that using 10% would represent departure from precedent in the region for municipal rates and would increase the transmission rates for other ratepayers in New England. This ignores Federal Energy Regulatory Commission (“FERC”) decisions that allow a COU to impute a capital structure. Also, since the transmission facilities of CMP and Versant are already reflected in the RNS rates, if Pine Tree Power uses the same capital structure as CMP and Versant in imputing its rate, there would be no change to the rates paid by other New England ratepayers.
- With respect to CapEx, LEI offers no comment on Dr. Silkman’s view that differences in the timing of CapEx would make little difference in the relative economics of the two studies.

When Dr. Silkman restates the LEI Model making the corrections noted above the results are quite spectacular. For the Reference Case (purchase price of 1.5 NBV), without recognizing the accumulation of cash:



As can be seen, instead of being more expensive for the first 9 years, under the restated Model Pine Tree Power saves Maine ratepayers money through lower rates starting in the first year of operation. In the later years the rate savings to Maine ratepayers are well over \$100 million/year.

Once the accumulation of cash is also taken into account, the total benefits to ratepayers in both the lowering of electric rates and the accumulation of cash to either invest in the system or pay down debt are even greater:



Of course, these savings would continue to accrue in future years and at an even high rate as the higher interest rate taxable debt used to acquire the assets of the IOUs in 2024 would be retired shortly after the 30 year study window.

April 2, 2021

Bill Dunn is a consultant in Yarmouth with almost 50 years of experience in the electricity industry and has advised clients of all ownership types (i.e., public, private, local and federal) worldwide and throughout the United States. He specializes in electricity market design and implementation, ancillary services, utility and power pool/market operations, inter-utility coordination, contractual power supply arrangements, and transmission access and pricing.

Resolution Supporting Consumer Ownership of Our Electrical Delivery Systems

Whereas every person and business in Yarmouth deserves affordable, reliable electricity; and

Whereas Maine residential electricity rates are 10th highest in the United States, and over half of this cost is for delivery alone;¹ and

Whereas Maine's lowest-income households pay \$1 of every \$4 on energy at present, on average;² and

Whereas Maine's paper mills and other large manufacturers are especially vulnerable to high rates and frequent outages; and

Whereas Maine's outages are more frequent and longer than those of any other state;³ and

Whereas Maine's existing consumer-owned utilities, from Kennebunk to Madison and from Houlton to Calais, serve part or all of 97 Maine towns with better reliability; and

Whereas Maine's two investor-owned utilities charge residential delivery rates that are 58% higher per kWh than these consumer-owned utilities, with worse reliability; and

Whereas when all 2018 taxes, tax equivalents, and other contributions to state and local government are considered, the contribution of U.S. consumer owned utilities — as a percentage of electric operating revenues — was 13% higher than that of U.S. investor-owned utilities;⁴ and

Whereas legislative language submitted in 2021 makes clear that any new consumer-owned utility in Maine will pay at least as much to the town of Yarmouth in property tax equivalents as any for-profit utility, both on new and existing property;⁵ and,

Whereas an independent analysis shows that Maine people and communities will save \$9 billion over the first thirty years, beginning from year one, by purchasing CMP and Versant with revenue bonds and keeping money here in the state that would otherwise go to distant shareholders;⁶ and

Whereas Maine's future energy security and independence depend on affordable, reliable electricity to power almost every aspect of our lives;

Now therefore, be it resolved by the Town Council of Yarmouth that,

Yarmouth strongly urges the Maine Legislature and Governor to pass legislation to replace Central Maine Power Company and Versant Power with a locally controlled utility or utilities, governed by a board elected directly by Maine people, and focused entirely on reducing outages and rates while boosting our broadband access and energy independence.

¹ [U.S. Energy Information Administration, Electric Power Monthly](#), table 5.6.A, Jan 2021

² [Maine's High Low-Income Energy Burden](#): Maine Public Advocate, June 2019

³ [Worst Power Outages in Nation](#): Governing Magazine, April 2021

⁴ [Public Power Report](#): U.S. COUs Pay 13% More to Their Communities: 2018

⁵ [Our Power Overview](#): 2021

⁶ Ibid.

[signatures if desired]

Notes to Municipal Leaders/Champions for the Our Power Resolution:

To learn more about the proposal, see ourpowermaine.org. For additional information or help, please contact info@ourpowermaine.org.

If it helps to earn full support, local governments may edit the resolution in any way they wish. For example, some municipalities add this sentence to the end: "...and conditions its support on the clear understanding that no tax dollars are to be used in the acquisition and that past, present and future municipal revenues shall be fully protected in the transition."

Please send signed, scanned resolution to info@ourpowermaine.org.

Thank you for helping to bring lower cost, reliability, and local control energy to Maine's energy future!



-- Bill, Andrew, Stephanie, Seth, John, Gary, Nicole, Sharon, and the entire Our Power team!